

Technical Assistance for Public Health In the Republic of Indonesia

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DESPITE the magnitude and complexity of public health problems in Indonesia, to conclude that the great need depicted there indicates, a priori, a corresponding scope for technical assistance would be a mistake. A sudden catastrophe in a highly organized society will utilize relief in direct proportion to need; but a socioeconomic dilemma developing over the centuries, like that which does exist in Indonesia, is probably of such a character as to limit sharply the fulfillment of its most desperate requirements.

The generalization may even be made that under these circumstances the capacity of an underdeveloped area to absorb technical assist-

ance is inversely proportional to its need. Therefore, the corrective effort chosen should not precipitate a host of new problems by creating an unreasonable demand for housing, power, roads, transportation, interpreters, and the like. Regardless of the need and the amount of available aid, the vital measure of what can be done is the absorptive capacity of the area.

Need for Foreign Assistance

An extraordinary number of surveys in the public health field have been made in Indonesia by a variety of agencies and individuals. Indonesian officials have reached the saturation point in the number of ideas which they can receive as to what should be done, and they are understandably skeptical about new proposals. Actually, the need for foreign assistance is fully recognized, and the Government is availing itself of aid proffered by the United Nations agencies, Technical Cooperation Administration, and other organizations.

Since foreign assistance and local capacity to absorb technical assistance are both perforce small in relation to the need in Indonesia, a big task falls on the shoulders of those who are guiding technical assistance and upon the Indonesian officials who are responsible for devising its efficient application. Measures of need in the form of surveys are necessary, as are estimates of indigenous resources, but the actual problem in Indonesia is to select a point of beginning, to choose an open avenue of approach which will not prove to be an ultimate dead end.

Introductory to understanding the health problems of Indonesia and the difficulties of administering technical aid in Southeast Asia is Dr. Jenney's background report on "Public Health in Indonesia" in the April 1953 issue of Public Health Reports (p. 409).

A commissioned officer in the Public Health Service, Dr. Jenney was assigned for 2½ years to the Technical Cooperation Administration (TCA) Mission to Indonesia as chief of the public health division. Dr. Jenney's current assignment has taken him to Santiago, Chile, as chief of the health and sanitation field party of the Institute of Inter-American Affairs.

Another aspect of technical assistance in Indonesia—in this instance the special problems encountered in two rural polyclinics in Middle Java—is described by Warren A. Ketterer on p. 558 of the June issue.

The need for technical assistance in Indonesia in the public health field does not differ basically from the need for more outright economic aid. During the 3½ years of Japanese occupation in World War II and during the subsequent struggle for independence, public health facilities on the group of islands deteriorated. Technical health personnel were lost to the islands because of the exodus of many of the Dutch. The same is true of agriculture, engineering, and mining: everywhere there is a shortage of tools and of those who know how to use them. A rapidly increasing population progressively accentuates these deficiencies, and a preoccupation with the complexities of new sovereignty and its political implications of hope and of disappointment compromises the effectiveness of remedial measures.

This preoccupation is exasperating to all those whose technical talents and professional thinking were developed in an environment of economic, social, and political stability. But the preoccupation is real, and it is not to be overridden by any plan of proffered assistance which does not recognize and sympathize with the fact that Indonesian Government officials are all filling dual and triple positions, each position enmeshed with a complexity of political and administrative issues. Eager to utilize either the short-range impact value or the long-range economic value of any project, the Indonesian Government is examining every opportunity to lessen the disappointment of the country in discovering the initial problems of independence.

The reaction which a given community may develop as a consequence of receiving a service previously unknown is somewhat irrelevant to the actual situation confronting the Indonesian Ministry of Health. Indonesian officials are naturally impatient with schemes which introduce a new service in a limited sphere while the major issue of rehabilitating former services remains unaffected. This attitude does not mean a condemnation of a scheme per se but simply an impatience with its irrelevancy at this time. When the load is heavy, foreign assistance should add another horse rather than another cart.

The large rural population of Indonesia is relatively stable, and its stability is based on the

subsistence-level individual farmer. The people are illiterate, patient, intelligent, and receptive, but not reactive. They harbor guerrillas, but they do not mobilize armies; they absorb ideology, but they resist the call-to-arms phase of propaganda. The rural population has a keen desire to participate in new developments which may improve its economy, regardless of the source, but it likes to feel the impact of such developments through its own Government. However, many areas seem to have a natural taste for local autonomy.

The indications are that the rural recipient of technical assistance is being and will be reached by assistance which is channeled through the Ministry of Health. Reaction which redounds through official health channels is far more effective in the long run than reaction which develops from assistance dropped, as from a parachute, to an isolated rural community.

Choice of Approach

The task of national planning in a situation such as prevails in Indonesia is new. Only recently has public health advancement in a large underprivileged population been considered as the full responsibility of an indigenous government. The task requires a different orientation from that evolved by colonial governments, missionary organizations, and the like. The task of national planning comes at a time when new insecticides and new drugs have changed the mechanism of disease control projects and at a time when global air transport facilitates rapid interchange of technical personnel. Most important, it follows at the heels of the "awakening of Asia."

The situation in Indonesia has certain distinct features which accentuate or modify the health picture, making it somewhat unique. Geographically, the Republic of Indonesia is the most complex nation on earth, and this complexity accentuates the logistics of transportation and communication. Its health services, although qualitatively good, are quantitatively perhaps the most deficient of any nation. Indonesia also faces a rather formidable language problem, since its secondary language—Dutch—is of limited use in general interna-

tional contacts. This forces the Indonesians to make special effort to speak English and creates a demand in many Government departments for English-speaking officials, many of whom are leading physicians and surgeons withdrawn from their medical activities by the Government.

With trained personnel and funds so scarce in relation to the need, the choice of the most expedient approach to meeting the need cannot be influenced by prejudices previously formed in an atmosphere of affluence. Those who have faced decisions in similar situations will agree that it is not an easy concept to keep constantly in mind. The age-old puzzle presents itself: which dollar is the most expedient in a given situation—one, the dollar spent in economic improvement with its consequent effect on health and education; two, the dollar spent on education with its effect on health and economics; or three, the dollar spent on health to provide manpower for economic development and sound minds for education?

Question of Emphasis

This choice of accent assails the planner at every step whether he is thinking in terms of the entire nation or of a single village. It will be a long time before there will be the human and financial resources in Asia to allow a simultaneous approach to all three avenues on an adequate scale. Occasionally, the choice is easy, but centuries of failures throughout world history give evidence that the weak spot in the eternal cycle of ignorance, poverty, and disease has been recognized by hindsight more readily than by foresight.

There are areas in Indonesia which have been drained of their best intellects because education provided opportunity for better reward elsewhere. One of the most poverty-stricken areas, with an infant mortality of 53 percent, is paradoxically one of the most literate areas. The failure here was perhaps because education was at an academic level, neglecting the more basic local needs at the trade school or agricultural school level.

Again, obvious failures can be seen in the transmigration areas of Sumatra and Celebes to which Javanese farmers were transplanted.

Some of these transmigrations resulted in tragic debacles because of malaria, which should have been the first consideration. Consequently, the elaborate economic preparations—and even educational and clinical facilities—proved to be expensive and futile plans, defeated by the overlooked mosquito. The abandoned paddies remain as monuments to the oversight.

Trend of Foreign Assistance

All issues which have given rise to a need for technical assistance in Indonesia are influenced by either one of two factors. One of these is the underdevelopment of resources. Another very different factor is the deterioration of what has already been developed. The former is too extensive to measure—the need can only be identified; it is immeasurable in relation to present capacities to meet it. The latter—deterioration of what has been developed—is measurable and therefore is useful in planning; it can be weighed against existing capacities to correct it with available assistance. The rehabilitation of a worthwhile but deteriorating health facility is a tangible and sound objective. In Indonesia, there is ample opportunity in this field because of the framework of public health facilities instituted under the Dutch but severely depleted during World War II and because of the subsequent period of protracted military action.

This deterioration, which leads to a disappointment to Indonesia as it first experiences freedom, is only part of a general progressive decline in many fields other than public health. The restitution of public health services has an advantage in that it is not fraught with the quandaries encountered in the economic field, such as the feasibility of rebuilding a sugar mill in the face of doubtful markets.

In the health field in Indonesia, technical assistance, supplies, and equipment from outside agencies are being devoted to (a) major disease control projects which introduce effective methods and which are administratively feasible under the present circumstances, particularly in yaws and malaria; (b) educational projects in professional and subprofessional medical fields and in popular health educa-

tion; (c) the support of certain indigenous preventive programs selected partly because they are in a position to utilize assistance to full advantage and to continue in the future; and (d) emergency items to replenish depleted medical services.

Psychological Aspects

Many devices have been used to illustrate the conflict arising when a conventional Eastern mind meets a conventional Western mind. In this day of airborne technicians and consultants, the conflict has a new meaning in terms of its potentiality for wrecking plans. A necessary part of planning, therefore, is the consideration of the tendencies of the East to misinterpret Western methods and of the West to overestimate the applicability of these methods. In the past it has been possible for the various agencies on encountering this conflict to allow time for adjustment and to select men of experience who were prepared to dedicate a substantial portion of their lives to reach an understanding with the Eastern mind. During the last few years, however, countless Western technicians have been sent to the East and have been given perhaps no more than a few days to establish a liaison which history has proved to be difficult to obtain in years. To these men it is a matter of desperate necessity constantly to check their own prejudices, of which they may have been unaware, and the prejudices of the East, which Eastern officials by virtue of courtesy and restraint do not reveal at once.

The newly arrived Western technical expert will be disappointed if he places too much confidence in community reaction. Eastern communities are cohesive units in certain aspects pertaining to well-established cultural mores, but they are not apt to produce a joint-action response to an innovation. They do not "write to their congressmen" to demand action for their community.

Achieving Cooperation

Because of a deep cultural stability, which cannot be moved with bulldozer and steam shovel techniques, Eastern communities are resilient in absorbing external shock. A sense of courtesy prevents an Eastern official from

explaining in advance that a particular project is in opposition to the established cultural pattern. The Western technician must anticipate what opposition to expect if he is to see his project not defeated, but he rarely will be warned. New methods are not resented—quite the contrary—but their adoption depends on the method of introduction. There is always a right way and a wrong way to introduce them depending on the cultural climate of the area concerned.

In the East, every situation must be explored completely; if not, an elaborate program may collapse because no one had discovered that the ferry boat—"it was shown on the map"—no longer exists. Printing facilities, communications, transportation, housing, electricity, and interpreters and stenographers are all on an "if available" basis. The East receives its supplies from many sources; so, the ribbon may not fit the typewriter, nor the electric bulb the socket, nor the needle the syringe. These irritations may be minor or they may be of sufficient magnitude to compromise an entire project.

In a nation the size of Indonesia, one must beware of being too well satisfied with progress in any single instance, particularly if it represents an insignificant fraction of the whole. The philosophy of "any good is good however small" is all very well, but the quart of water should be used to prime the pump rather than given to the passer-by. Technical assistance meant to have catalytic effect should reach the people through agencies which can be expected to continue the work permanently. The development of a single isolated project is useful in the national sense only when it is designed to serve as a demonstration center for teaching purposes. The demonstration center development in Indonesia has been a happy compromise between the danger of losing effect by dissipation of effort on the one hand or losing effect by single-area concentration on the other, but here again the demonstration center had to be associated with a permanent and dependable agency.

The Eastern official participating in cooperative development programs tends to assume that he can bridge the gap between Eastern and Western technology by acquiring the latest, the

largest, and the most complicated apparatus without thought for its maintenance, operation, or utility. This is a well-known tendency and certainly is not exclusively Eastern. It is exemplified by expensive X-ray units combined with inadequate darkroom procedures, or by huge tractors for small fields. Avoiding such errors as these is often the first, and sometimes the most important, element in a technical assistant's contribution.

Difference in Attitudes

An eagerness to institute research may present a formidable problem. The Eastern mind is particularly adapted to investigation, and its achievements are too well known to need comment. However, because of the progress of research in the West during the war years, a grant in the East today may lead to unnecessary duplication or to the exploration of remote aspects of the problem before the application of basic knowledge. Research must not be discouraged, yet the assisting agency must assure itself that established principles are followed in the programs for which it is responsible. The severing of scientific liaison between the East and the West during the war has produced a confusion which will require many years of positive action to correct before research in the two areas will complement rather than overlap.

The Eastern physician tends to focus his efforts on therapeutic medicine rather than on preventive medicine because of the much greater personal reward in the former branch of medicine. This is true the world over, but the contrast in the East is greater, where the choice may be between wealth and fame and poverty and anonymity. The Western technician can assist in correcting this discrepancy; indeed, it is one of his basic objectives. The task, however, is profoundly difficult until community responsibility for the preservation of health has been acknowledged. Until that comes about, the demand will be for therapy, and the response will be in accordance with the demand. The most constructive step to take in the meantime is for organized teams to demonstrate the value of preventive medicine to the community.

The Eastern mind is not as conscious of the importance of problem-solving as is the Western mind. In the East, to acknowledge the

existence of a problem is often considered adequate. There, if a community is told that something "will be done as soon as possible," the "when?" will not be asked. This Eastern reaction, of course, stems from a long experience with deprivation, but it is also a reflection of the difference between East and West in concept of time. This attitude is not a matter of indifference nor of procrastination: it is something quite apart and is difficult for the foreign mind to comprehend. Six months hence and twelve months hence represent not different times, but simply—"the future." This attitude toward time produces an exasperating conflict with Western scheduled methods, but there is a certain realistic wisdom in it which gradually induces the Westerner, perhaps not to adopt the same attitude but to recognize it as locally meaningful, at least until the "something must be done about it" philosophy is accepted in the East.

Finally, either Westerner or Easterner may assume that all difficulties in an ex-colonial nation stem from mismanagement by the former colonial power. This may well be true in specific instances but to adopt any broad generalization is a dangerous obstacle to clear thinking. One must first look critically at the status of those nations or areas of nations which have never experienced colonialism. The adoption of the scapegoat philosophy to explain shortcomings is certainly no help as a basis for discussion and will soon develop a false sense of optimism as to the likelihood of success. The common phrase "nothing has been done for these people" is easy to repeat off-hand, but it is not always supported by a study of the facts. A careful investigation of facts will often show a long history of desperately frustrated effort on the part of the local people against insurmountable odds or against factors which, it must be remembered, were insurmountable until the advent of such effective agents as DDT and the antibiotics.

Java and Demography

The foregoing has depicted certain problems which challenge the planning capabilities of public health authorities in Indonesia. It must be acknowledged that these problems are com-

plicated by certain logistic factors of a magnitude rarely encountered. In some respects they are specifically Indonesian problems because of the extraordinary geography of this nation of islands. The public health planner, however, when considering such obstacles, is confronted by an ominous population situation which overwhelms all other aspects. As a demographic dilemma, the Island of Java is one of the world's most crucial spots. To appreciate this, an academic background is unnecessary: living in Java is enough to instill a sense of dangerous human saturation.

Estimated at 10 million a hundred years ago, the population of Java and nearby Madura is now 52 million and is now increasing by more than 5 million persons a decade. Although the gravity of the situation had been long recognized by the Dutch, the 1930 census figures of 41 million, the population of France at that time, first focused world attention on Java as an island of incredible population density. In 1930, the birth rate of Java and Madura was reported as 27.9 per 1,000 people and the death rate as 19.9. The present rate of increase is thought to be at least 1.5 percent a year, which, unless there are intervening deterrents, would bring the population of Java and Madura to over 100 million before the end of the century. Whether the less severe population deterrents observed in similar situations will obtain in Java, or whether the most paradoxical famine the world has yet experienced will develop in this garden island remains to be seen.

Supply of Rice

Population increase has more than kept pace with increased productivity of rice by irrigation, fertilization, and improved seed, but in Java a finite remedial limit to this productivity is not far away. The per capita daily cost of rice—rice is the hinge of Java's economy—has risen to a figure which is approaching the basic daily wage while rice imports are exceeding a half million metric tons a year.

Some relief may be afforded by a change in food habits, but perhaps the most hopeful project, or at least one that may postpone the crisis longer than any other, is mechanized rice production. This project proposes the development in Borneo, in Sumatra, and in Celebes of

mechanized production areas, operated largely to supply rice to Java's millions.

The story of two disasters reveals the precarious position of the Javanese economy more dramatically than economic theories. The first disaster was the depression of 1929, which struck a sudden and fearful blow at the economy of Java. The second was the Japanese occupation of the island, which brought to light the dangerous imbalance between rice and population. World War II cut off vital imports at the same time that the Japanese army was withdrawing rice from Java to feed its troops in New Guinea. The result was widespread starvation in Java and an estimated 2 million deaths.

No Ready Solution

Reduction of population growth by control measures would require a mutation in cultural mores over a period of time too long to solve the problem of imbalance. Permissible polygamy, the prestige value of early marriage and large families, and the status of women in general are all contributing cultural factors. In the absence of any other form of insurance, the value of many children and grandchildren in an agricultural family is an age-old incentive for uncontrolled reproduction.

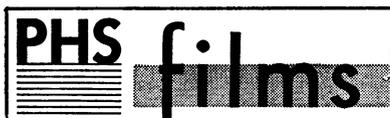
Since all Indonesia except Java and Madura is relatively sparsely settled, the concept of transmigration is appealing. Transmigration was begun many years ago by the Dutch. Because it is a sound project for economic development, it will probably continue, but it can have little effect on the population of an island that is increasing by more than a half million persons a year.

While we are promulgating public health programs in the presence of such a formidable dilemma, we hear protest against measures which will decrease infant mortality and only add to the magnitude of the impending disaster. There always has been headshaking over the wisdom of saving lives in famine areas, but in recent years the headshaking has given way to concise and sometimes cynical expressions of disapproval. Public health measures are attacked for doing no more than preserving lives for ultimate starvation. Since we face the choice between disease and famine, so the critics

say, let us preserve disease to eliminate a fraction of the population so that we can avoid famine for the whole. This is indeed a strange bedfellow to be espoused in the cause of human welfare.

To preserve disease is to allow unnecessary death and incapacity for work. How much of a gap is there between allowing death and arranging it? The proposal is dangerously close to genocide and is unacceptable even if it were not known that birth rates rise with disease, ignorance, and poverty and eventually decline with better health, education, and economic status. The fact that the reaction is eventual, and not immediate, can have no bearing on the wisdom of the objective selected, for no solution is immediate.

No program devoted to human welfare can afford to treat disease, poverty, and ignorance as if they were separate entities striking a community merely by coincidence. We know too well that they are part of one another, inseparable in both cause and solution. One can scarcely imagine a malaria-stricken farming population staggering off to increase the rice yield, of yaws-infected school children winning their way to better things, all patiently anticipating the day when someone decides that it is safe to institute disease control. The illiterate villagers are apt to know, by virtue of having lived with their problem since time began, that they cannot meet the demands of education and improved economy without the hope of being healthy.

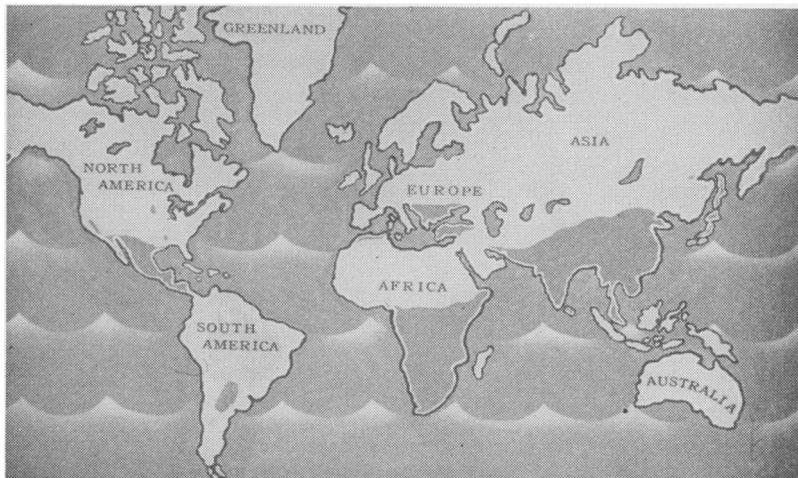


Epizootiology of Anthrax

35 mm., sound, color, 9 minutes, 1952.

Audience: Veterinarians, practicing physicians, instructors and students in veterinary and medical schools, and public health personnel interested in anthrax.

Available: Loan—Communicable Disease Center, 50 Seventh Street, N. E., Atlanta, Ga. Purchase—United World Films, Inc., 1445 Park Avenue, New York 29, N. Y.



Anthrax occurs throughout the world. (Endemic areas indicated by shaded areas.)

This film is designed as an aid in diagnosing and controlling anthrax, for centuries a killer of man and his domestic animals. Although modern antibiotics have contributed toward its control, it is still a serious problem to stockmen, veterinarians, and public health workers.

In depicting the epizootiology of anthrax, the film shows the cycle of infection and appearance of the spores of the etiological agent, *Bacil-*

lus anthracis. The case history of the spread, diagnosis, and final control of an epizootic of anthrax arising from an imported shipment of bonemeal which was contaminated with the spores of *B. anthracis* is included. Attention is called to the worldwide distribution of anthrax endemic areas, the susceptibility of

animals to the disease, the usual modes of infection, and the application of control measures.

The control of anthrax, the film points out, depends on early diagnosis followed by thorough sanitary measures and the constant vigilance and cooperation of stockmen, veterinarians, and public health officials.